

Weekly Report

18th, Dec. - 24th, Dec. 2017

Done:

1. Collecting the data mentioned last week, transform into json or geojson. We added one type of data, fire power radiative data, also one type of satellite detection data, involves uncertainties.
2. Consulted with buddies about modern ways of building backend, middleware; learned react + node + webpack techniques on these stuffs.
3. A more detailed design:

The basic functions can be similar to UCSD's WIFIRE

If user select (draw polygons or text search) one place, s/he can:

- view its historical records of fire (in this area, or near this area, plot on the map). the corresponding weather conditions and other indices; statistics about the fire destructions (design as cards)
- view its current weather condition and other indices, previous 6-day's weather conditions and other indices. And its historical weather and indices at the same time period of a year. Is there any anomalies / whether fire happened around this time of a year in history?
- when operating above two tasks, the system should support:
 - selection which type of data you want
 - filter of time span
 - aggregation on time / space || Zoom in / out -- aggregation / details
 - snapshot (map-based images)
- visual comparison
 - on the map, or
 - among different timestamps of weather condition or other indices
 - we may calculate some measures to quantify the difference, and if necessary visualize these measures
- basic recommendations. as a prototype or toy system, we may recommend based on:
 - report text
 - geographical
 - destruction
 - weather conditions
 - fire radiative power, etc.

To Do:

1. We are close to build a mock-up system.
2. After the holiday, we may propose a more detailed way of display the fire history since the quantity of uncertainties in the data is beyond our estimation.

Papers:

Recently only skimmed several papers. After the mock-up system is done, I will read more paper for related work.

安排表

内容	DDL	Milestone
数据抓取, 融合	抓取完成: 融合月底	融合进行中; 评估 uncertainty
前后端学习与实现	月底	Webpack 服务器或者中间件有关知识.